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OM protein - protein search, using sw model

Run on: June 6, 2001, 23:29:46 ; Search time 24.07 Seconds

(without alignments)
604,180 Million cell updates/sec

Title: US-09-494-297-2

Perfect score: 3945

Sequence: 1 MKRRFPNKLTNTQRLVS.....TAGISLGICGTHIRIKHD 757

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 185757 seqs, 19210857 residues

Total number of hits satisfying chosen parameters: 185757

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents AA:*

1: /cgml_7/prodata/1/1aa/5A.COMB.pep:*\n2: /cgml_7/prodata/1/1aa/5B.COMB.pep:*\n3: /cgml_7/prodata/1/1aa/6A.COMB.pep:*\n4: /cgml_7/prodata/1/1aa/6B.COMB.pep:*\n5: /cgml_7/prodata/1/1aa/PCTRUS.COMB.pep:*\n6: /cgml_7/prodata/1/1aa/Backfile1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query	Match Length	ID	Description
1	194.5	4.9	2439	4	US-09-074-658-11 Sequence 11, Appl
2	178	4.5	898	2	US-08-867-941-11 Sequence 11, Appl
3	176	4.5	905	4	US-09-074-658-70 Sequence 70, Appl
4	154.5	3.9	2432	4	US-09-074-658-15 Sequence 15, Appl
5	148	3.8	1183	2	US-08-447-031A-2 Sequence 2, Appl1
6	145	3.7	1112	2	US-08-714-402-2 Sequence 2, Appl1
7	142.5	3.6	627	1	US-08-703-947-2 Sequence 10, Appl
8	139	3.5	2366	1	US-08-480-604A-10 Sequence 10, Appl
9	139	3.5	2366	2	US-08-405-496A-10 Sequence 10, Appl
10	138	3.5	894	2	US-08-867-941-15 Sequence 15, Appl
11	134	3.4	1861	2	US-08-790-912-4 Sequence 4, Appl1
12	128	3.2	1394	5	PCT-US95-10661A-2 Sequence 2, Appl1
13	125.5	3.2	691	3	US-08-946-475-2 Sequence 9, Appl1
14	125.5	3.2	711	3	US-08-946-475-9 Sequence 2, Appl1
15	123	3.1	454	1	US-08-259-264-2 Sequence 2, Appl1
16	122	3.1	663	3	US-08-776-265-5 Sequence 5, Appl1
17	122	3.1	679	4	US-08-913-942-15 Sequence 15, Appl
18	122	3.1	2231	1	US-08-153-799-16 Sequence 16, Appl
19	121.5	3.1	1296	1	US-08-480-604A-28 Sequence 28, Appl
20	121.5	3.1	1296	2	US-08-405-496A-28 Sequence 28, Appl
21	121.5	3.1	1338	1	US-08-471-033-50 Sequence 50, Appl
22	121.5	3.1	1338	2	US-08-471-044-50 Sequence 50, Appl
23	121.5	3.1	1338	2	US-08-463-483A-50 Sequence 50, Appl
24	121.5	3.1	1338	2	US-08-471-046A-50 Sequence 50, Appl
25	121.5	3.1	1338	2	US-08-470-566B-50 Sequence 50, Appl
26	121.5	3.1	1338	2	US-08-469-334-50 Sequence 50, Appl
27	121.5	3.1	1338	3	US-09-300-529-50 Sequence 50, Appl

28	121.5	3.1	2329	3	US-08-755-587-16 Sequence 16, Appl
29	121	3.1	1588	5	PCT-US93-07261-11 Sequence 11, Appl
30	121	3.1	1663	5	PCT-US93-07261-16 Sequence 16, Appl
31	120.5	3.1	1964	2	US-08-790-912-3 Sequence 3, Appl1
32	120.5	3.1	2052	2	US-08-790-912-2 Sequence 2, Appl1
33	120	3.0	657	3	US-08-613-009A-19 Sequence 19, Appl1
34	120	3.0	904	4	US-09-198-484-2 Sequence 2, Appl1
35	120	3.0	1663	1	US-08-798-691-4 Sequence 4, Appl1
36	120	3.0	1863	3	US-08-825-487A-4 Sequence 4, Appl1
37	120	3.0	1863	4	US-09-074-476-6 Sequence 6, Appl
38	120	3.0	3418	3	US-08-755-587-44 Sequence 44, Appl
39	119.5	3.0	1222	2	US-08-682-517-15 Sequence 15, Appl
40	119.5	3.0	1252	2	US-08-682-517-9 Sequence 9, Appl1
41	119	3.0	1863	1	US-08-598-591-2 Sequence 2, Appl1
42	119	3.0	1863	1	US-08-798-691-6 Sequence 2, Appl1
43	119	3.0	1863	1	US-08-798-691-6 Sequence 6, Appl1
44	119	3.0	1863	3	US-08-825-487A-2 Sequence 2, Appl1
45	119	3.0	1863	3	US-08-825-487A-6 Sequence 6, Appl1

ALIGNMENTS

RESULT 1
US-09-074-658-11
Sequence 11, Application US/09074658
Patent No. 6184371
GENERAL INFORMATION:
APPLICANT: Loosmore, Sheena M
APPLICANT: Run-Pan Du
APPLICANT: Qutjun Wang
APPLICANT: Yang, Yan-Ping
APPLICANT: Klein, Michel H
TITLE OF INVENTION: LACTOFERRIN RECEPTOR GENES OF MORAXELLA
NUMBER OF SEQUENCES: 78
CORRESPONDENCE ADDRESS:
ADDRESSEE: Sim & McBurney
STREET: 6th Floor, 330 University Avenue
CITY: Toronto
STATE: Ontario
COUNTRY: Canada
ZIP: M5G 1R7
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/074,658
FILING DATE: 08-MAY-1998
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Stewart, Michael I
REGISTRATION NUMBER: 24,973
REFERENCE/DOCKET NUMBER: 1038-795
TELECOMMUNICATION INFORMATION:
TELEPHONE: (416) 595-1155
TELEFAX: (416) 595-1163
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 2439 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
US-09-074-658-11

Query Match 4.9%; Score 194.5; DB 4; Length 2439;
Best Local Similarity 18.6%; Pred. No. 1.1e-06;
Matches 180; Conservative 128; Mismatches 328; Indels 331; Gaps 44;
QY 4 TRPNKNTINTQRLVSKSKRFTVTLVGVFLMIFLVTSVGAKTVFGLVESSTPAIN 63

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Db 79 TDPDNGDNNQLTQ-----AOKTAAAGFEVW-----GKIRDTSPKN-D 115
Qy 64 PDSSSE--YRWG--YESYVRGHP-----YKOFRAHDLRVNL 98
Db 116 PDTSNDLVQOMOGKLYVGIDAHRPDGICTGKNLRQPTIANDIKPLTFKFPALSDLHDS 175
Qy 99 EGSRSYQVYCFNLKKAAPLIGSDSSVKK--WYKKHDSITKFEEDYAMP-----RIT 147
Db 176 ERRR-FDPKPLNTIKYGYGNLTTPSKNNTYIINHQAADKKNNKPPDPENIRFGYLEIQ 234
Qy 148 GDELNOK-----LRAVYNGHPONANGIMEGLEPLN----- 178
Db 235 GSSLTQKNADTPNDKDRIPKPMPILEFHG--ENASQSLPSAGKFNTGMWLYLSDVKRRP 292
Qy 179 AIRVTOEAVWYSDNAPISNPDESFRRESNLYSTQSL----- 219
Db 293 ALSASDRGVYVILNASGKSN-----EGDVSAHAHYLNGFOYKHPATYQVDPDTN 343
Qy 220 -MRQALKOLIDPMLATKMKROYDDF-----QLSIFESEDK--GDKYNKYONLISG 269
Db 344 SLTGKLSYDNPQOQTAQGYIKSQPDTTKKYVNETDVIQIDAKINGNRVGTAKSLVLEN 403
Qy 270 L-----VPTKPPGDPMPMPNPQPTTSYLIRKYYAIGDYSKLLGATLQLTGDNVNS 321
Db 404 TETAPRIKELFSKKANPNP--NPN-----SDTLEGGFYESGDEL-- 442
Qy 322 FQARVSSND-----IGERIELSDGTYYLTLELNSPAGYSIAEPITFKYKAGVYTIIDG 375
Db 443 --AGKFLSNDNASYVFGGKRDTDPKPVATKYVESAGE--KPSTSFVDNETIGILNS 498
Qy 376 KOIENPNKEIVE--PYSVEAYNDF-----BEFSVLTTON-----YAKFYVAK 415
Db 499 KRLNDAYNEKIDNGDIPTSDERYDEFPWGEKKAEPFKVYSSSQAVPAYEGQDKRYE-- 556
Qy 416 NKNGSSQVYVCFNADJAKSPDSEDGKTMPTDTGEV----- 453
Db 557 --NGNYDYLASSVDKLADADAVKANOSIKEKYPNATLNKDNQVTAIYLOEANKRPYTA 614
Qy 454 ----KTHIA-GRDLF-----KYTKPRDTPDPTFLKHIKYI----- 486
Db 615 IRAKSTQHSFGETLYNDANQPTRSFYOGGADSTLTPKAGKTYTNGNAGYLOKK 674
Qy 487 EKGYREKGAIEYSG-----LLETQLRATQALAIYYT-----DSAEIDKDKLDYHGF 535
Db 675 DKYSNNEETIKKKHQDYLTLED-----FTPEDDDDDLTASDDSDDDAHG 722
Qy 536 GDMNDSTLAVAKLIVYADDSNPQLTDLDFIIPNNKQYSLIGTQMHPELDVITIMED 595
Db 723 DDL-----IASDSDDDADGDDSDDL--GDGADDAAGKYVHAGN--IRPER 767
Qy 596 KKEVIVP--THNLTL-----RKYVTGLAGDRKDPHFETELKNNQOELL 637
Db 768 ENKYLDINEPTHEKTLALOGKNAKAFVDVDTNLSLTKLNDENGDIYFDL--KNGKIDGT 835
Qy 638 SQTVKTDTKNLEFKDKATINLKHGSLTLQGLPEGYSYLKTEDEGKYKVKVNSOEVA-- 696
Db 826 GFYAKADVNYREVG--NNQCG-----GFLVNIKIDVKGQGFNGEGLNG 871
Qy 697 -----NATVSKTG-----ITSDETLAFENNEKPPVPGVCKINGYL--ALIVYA 739
Db 872 QLOYDKGDIINDTAERKAGAVFGAVKDKMSKITKQTPSVHTWTTHRLMLAIKALFVGA 931
Qy 740 GISLIGW 746
Db 932 VLPLSYW 938

```

```

APPLICANT: Du, Run-Pan
APPLICANT: Wang, Qui-jun
APPLICANT: Wang, Yan-ping
APPLICANT: Klein, Michel H
TITLE OF INVENTION: LACTOFERRIN RECEPTOR GENES OF MORAXELLA
NUMBER OF SEQUENCES: 67
CORRESPONDENCE ADDRESS:
ADDRESS: Slim & McBurney
STREET: 6th Floor, 330 University Avenue
CITY: Toronto
STATE: Ontario
COUNTRY: Canada
ZIP: M5G 1R7
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/867,941
FILING DATE: 03-JUN-1997
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Stewart, Michael I
REGISTRATION NUMBER: 24,973
REFERENCE/DOCKET NUMBER: 1038-681 MIS:jb
TELEPHONE: (416) 595-1155
TELEFAX: (416) 595-1163
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 898 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
US-08-867-941-11

Query Match 4.5%; Score 178; DB 2; Length 898;
Best local similarity 18.6%; Pred. No. 4.9e-06;
Matches 171; Conservative 118; Mismatches 305; Indels 324; Gaps 42;

Qy 4 TRPNNKLTNTQRYVLSKSKRFTVLGVFLMIFALVTSWGAQTVFGLVSSIPNAIN 63
Db 79 TDPDNGDNNQLTQ-----AOKTAAAGFEVW-----GKIRDTSPKN-D 115
Qy 64 PDSSSE--YRWG--YESYVRGHP-----YKOFRAHDLRVNL 98
Db 116 PDTSNDLVQOMOGKLYVGIDAHRPDGICTGKNLRQPTIANDIKPLTFKFPALSDLHDS 175
Qy 99 EGSRSYQVYCFNLKKAAPLIGSDSSVKK--WYKKHDSITKFEEDYAMP-----RIT 147
Db 176 ERRR-FDPKPLNTIKYGYGNLTTPSKNNTYIINHQAADKKNNKPPDPENIRFGYLEIQ 234
Qy 148 GDELNOK-----LRAVYNGHPONANGIMEGLEPLN----- 178
Db 235 GSSLTQKNADTPNDKDRIPKPMPILEFHG--ENASQSLPSAGKFNTGMWLYLSDVKRRP 292
Qy 179 AIRVTOEAVWYSDNAPISNPDESFRRESNLYSTQSL----- 219
Db 293 ALSASDRGVYVILNASGKSN-----EGDVSAHAHYLNGFOYKHPATYQVDPDTN 343
Qy 220 -MRQALKOLIDPMLATKMKROYDDF-----QLSIFESEDK--GDKYNKYONLISG 269
Db 344 SLTGKLSYDNPQOQTAQGYIKSQPDTTKKYVNETDVIQIDAKINGNRVGTAKSLVLEN 403
Qy 270 L-----VPTKPPGDPMPMPNPQPTTSYLIRKYYAIGDYSKLLGATLQLTGDNVNS 321
Db 404 TETAPRIKELFSKKANPNP--NPN-----SDTLEGGFYESGDEL-- 442
Qy 322 FQARVSSND-----IGERIELSDGTYYLTLELNSPAGYSIAEPITFKYKAGVYTIIDG 375
Db 443 --AGKFLSNDNASYVFGGKRDTDPKPVATKYVESAGE--KPSTSFVDNETIGILNS 498

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Qy	376	KOINPNKEIYE-----PYSEAYUDF-----	EEFSVLTTON-----YAKFYAK	415
Db	499	KKLMDAYANEKIDNDIDTTSBERIDFEFPMGEKKAFFTKVYSSSTOAVPAFYGQHDKFFY--	556	
Qy	416	NKNGSSOVVYCCFNADLSPPESEBGKTMTPDFTTGEV-----	453	
Db	557	--NCGNYDLSSASVDKLPADAVAKQNSIKKKYPNATLKNKNDQYATLVLQEAKNRPYTA	614	
Qy	454	-----KYTHIA-GRLE-----	466	
Db	615	IRASVYHISGETLFLYDANOTPTRSFYFVGGRADJSTFLPKAGKFTYNGLMAGYLLQKK	674	
Qy	487	EKGREKGALEIYEGS-----LTETOLRAATOLAIYFT-----	535	
Db	675	DKGSNNBEETIKKKGHODYLLTED-----	722	
Qy	536	GDMNDSTLNAKILVEYAQDSNPQOLTDLDFEIPNNKYSGLSTGMHPEDYDIIMED	595	
Db	723	DDL-----IASDSDODDADGDDSDDL--GDADADAAGKVVHAQN--	767	
Qy	596	KKEYIVP-----THNLTL-----	637	
Db	768	ENKILPIPEPHETFPALDGKNKAKFDVDDTNSLTJGLKNDERGDYFDL--KNGKIDGT	825	
Qy	638	SQIVKTDKTNLEFKDGKATJNLKHGESLTLQGLPEGYSYLVEKTTSEGYKVKVNSQEVA-	666	
Db	826	GFTAKADVPNPREEVG-----NNOGG-----	871	
Qy	697	-----NATVSKTG	704	
Db	872	QLOYDKGDGGINDTAKAG	889	

RESULT 3
 US-09-074-658-70
 : Sequence 70, Application US/09074658
 : Patent No. 6184371
 :
 : GENERAL INFORMATION:
 : APPLICANT: Loosmore, Sheena, M
 : APPLICANT: Run-Pan Du
 : APPLICANT: Qufun Wang
 : APPLICANT: Yang, Yan-Ping
 : APPLICANT: Klein, Michel H
 : TITLE OF INVENTION: LACTOFERRIN RECEPTOR GENES OF MORAXELLA
 : NUMBER OF SEQUENCES: 78
 : CORRESPONDENCE ADDRESS:
 : ADDRESSEE: Sim & McBurney
 : STREET: 6th Floor, 330 University Avenue
 : CITY: Toronto
 : STATE: Ontario
 : COUNTRY: Canada
 : ZIP: M5G 1R7
 :
 : COMPUTER READABLE FORM:
 : MEDIUM TYPE: Floppy disk
 : COMPUTER: IBM PC compatible
 : OPERATING SYSTEM: PC-DOS/MS-DOS
 : SOFTWARE: Patentin Release #1.0, Version #1.30
 : CURRENT APPLICATION DATA:
 : APPLICATION NUMBER: US/09/074,658
 : FILING DATE: 08-May-1998
 : CLASSIFICATION: 435
 : ATTORNEY/AGENT INFORMATION:
 : NAME: Stewart, Michael I
 : REGISTRATION NUMBER: 24,973
 : REFERENCE/DOCKET NUMBER: 1038-795
 : TELECOMMUNICATION INFORMATION:
 : TELEPHONE: (416) 595-1155
 : TELEFAX: (416) 595-1163
 : INFORMATION FOR SEQ ID NO: 70:
 : SEQUENCE CHARACTERISTICS:
 : LENGTH: 905 amino acids
 : TYPE: amino acid

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; STRANDEDNESS: single
; TOPOLOGY: linear
US-09-074-658-70

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Query Match	4.5%	Score 176;	DB 4;	Length 905;
Best Local Similarity	20.6%	Pred. No. 7.2e-06;		
Matches 164;	Conservative 102;	Mismatches 264;	Indels 266;	Gaps 40;

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0Y      84  YKFOEVAHDDRVMLIESRSYOVYCFNLKKA-----EPLSDSSSVK-----WKKHDGI 133
      165  YFDFEFPKISDL--HLENSE-----HYFPAKKANNAIKIYGYGALSPPAKNPYYMYAQDQNI 218
0Y      134  STK--FEDYA-----MSPRIT-----GDELNOKRAVYNG-----HPQMANGLMEGL 174
      219  KNKKRPDQDYQNIIRFGYEMELRELJDNKKGADNQSDKNNAIIFTPPTLEHYHGMNSTHLP-- 276
0Y      175  EPLNARIYTOEAVVYISDNAP-----ISNPDE-----SFRKRESNLVSTSQLSL----- 219
      277  ---RAGKEDYEGNMVLYLTLDVKKRPFELKTDKQGTGYENSTRKSNEGDLVSAHAHYLMSFK 333
0Y      220  -----WQALQJLIDNLAITKMPKQYDDP-----OLSIYESBK-- 254
      334  YKHTPATYSVDPEQNTLKGSLTYDNPKNQADGRYIARSGEFDIDKKNKNEADVEIIDAKIN 353
0Y      255  GDKYKNGKYONLLSGGL-----VPTKPPGPBPMPNPQPTSVLIRKRYAIGDSKL 306
      394  GNRTGTAKSLSIDONTNTPAPVFKLEFSKKNPNP--DPN-----SDT 444
0Y      307  LEGATLQJLTDGNVNSFOARVFSNDI-----GERIELSDGYITTELNSPAGYSIAEP 359
      435  LEGFEGYSGSGDEL-----AGKFLSNDNMTFVVFGGRKDKTEPATKTYVES--TGFE--KP 487
0Y      360  ITFKEVAGKYVTIIDGR-----QIENPKELIPEYVSAYNDF-----EEFSVLTT 405
      488  STSEFGMEIISITIDGGLANDEVNNOJEDETVPVSNKEYYEYNGRPNKQFTKKNINSVQ 449
0Y      406  ONYA-----KEFY-----AK--NKNSSQVYVCFNDLKSPPDSEOGKTMPTDFT 449
      548  KNPAIFGCHDKFTENGNTYDLSAKKANLGYSDOTSTNKSILAKYPA-----KYSTDNKV 603
0Y      450  T-----GEVKYTHAGHDLKFKYTVKPRDTPDPTFLK-----480
      604  TKIYLQOAKDKPRTAIIAKSYDHTISFGVLYLNDKGNPRTSYFQGGQADAVSTQLPESAGK 663
0Y      481  -----HIKKVYIEKGYREKGOAIEGSLTETQLRAATOLAIYTT-----519
      664  FTYNGMLAGYLTQKKDKGYSKDEPTIKQKGLD-----YLTDFEIPODDDDD 712
0Y      520  DSAELDKDKLKD--YHSGDMDMDSLTAIAKILVEYAQOSNPQLTDLDPFIIPNNKKYSGLI 578
      713  DSLTASDSDODDNTHGGDDL-----IASDSDODDPTDGGDDSDDL--GGCADDAA 761
0Y      579  GTOWHPEBLYDIIMEDKKEYIAP-----THNLT-----RKVTYGLADRT 620
      762  GKUYHAGN-----IPPEENKILPIINEPTHEFTFLDCKNAKAFVNPNDTSLGKLADER 817
0Y      621  KDFHEIETLKNKNOELLQTYKTDTKTNLEFQDGKATINLKHGESLTLQGLPEGYSYLVE 680
      818  GDIFYEDI--KNGKIDGIGFTAKADVPYRYREVG-----NNGG-----GLYVINKD 861
0Y      681  TDSEGYKVVYNSQEVA 696
      862  IDVKGREFGTNGEELA 877

```

APPLICANT: Qutjun Wang
 APPLICANT: Yang, Yan-Ping
 APPLICANT: Klein, Michael H
 TITLE OF INVENTION: LACTOFERRIN RECEPTOR GENES OF MORAXELLA
 NUMBER OF SEQUENCES: 78
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Slim & McBurney
 STREET: 6th floor, 330 University Avenue
 CITY: Toronto
 STATE: Ontario
 COUNTRY: Canada
 ZIP: M5G 1R7
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/074,658
 FILING DATE: 08-MAY-1998
 CLASSIFICATION: 435
 ATTORNEY/AGENT INFORMATION:
 NAME: Stewart, Michael I
 REGISTRATION NUMBER: 24,973
 REFERENCE/DOCKET NUMBER: 1038-795
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (416) 595-1155
 TELEFAX: (416) 595-1163
 INFORMATION FOR SEQ ID NO: 15:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 2432 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 US-09-074-658-15

Query Match 3.9%; Score 154.5; DB 4; Length 2432;
 Best Local Similarity 19.6%; Pred. No. 0.002;
 Matches 169; Conservative 101; Mismatches 306; Indels 285; Gaps 41;

QY 84 YKQFVAHDLRYNLEGSNSYOVYCFNLKKAEPUG--SSSVKWKYKKHGDISTKEDYA 141
 DB 161 YFNKFPALSDLHLEGSRLRHR-FDPOKINTIKVGYGNLTTPSNNTIHNQADNKKNNK 219
 QY 142 MSP-----RITGDELNOK-----LRVMYNGHONANGIMEGLEPLN 178
 DB 220 VDPYENIRRGYLELGSSSLTOKNADNONEDRLPKPMPILFTHG--ENASSQLPSAKFN 277
 QY 179 -----AIRVTOEAVWYYSNAPISNPDESFKRESNIVTSQLSIMRQA 223
 DB 278 YVGNMUYLSDVKRRPALSDERIVGYLNASGKAN-----EDDVYSAHIIYINGFQ 328
 QY 224 LKQLDIPNLATKMPKQVDPDF-----QLSIFESDKDKYKNG----- 261
 DB 329 YKH-----TPATYVVDFTDNLSTGLSYDNPNO--QNNKGEYLKSFDTTKKYNED 379
 QY 262 -YQ-----NLSG--GLVPTKPPTPG-----DPPMPNPQPTTSVLRKYYAIGDVS 304
 DB 380 VYQIDAKINGNRFVGTAKSLVNEKTQTAPRIKELFSKKANPNPNPN-----S 427
 QY 305 KLEGATLQLTGDNVNSFOARVSSNDI-----GERLELSDGTYTTLNELNSPAGYSIA 357
 DB 428 DTEEGFYGESGDEL-----AGKFLSDNMSYVYVFGKRRKDTTPVATKYTFES-AGFE-- 480
 QY 358 EPIITFVEAGKYVTIIDGQIENP--NKEIVEPYSEAY-----NDFEESVLTQ-- 406
 DB 481 KPSTSPVDNETIGIIRKGLNHNHINEDETIPSDDSYGYGTWCKPEKOFKRYSSSTQV 540
 QY 407 -----NYAFYIYAKNNSSQVYVCYNADLAKSPDSEDGKTKTPTDTTGEV----- 453
 DB 541 PAYFGHDKRFY---NGNYDLSASRVDKLADADAVKANOSIKERYPNATLNKKNOVTA 596

QY 454 -----KYTHIA-GRDLF-----KTYVPRDTPDPTFLKHKKV 485
 DB 597 IYLOEAKONKPYTAIRAKSYQHISFGETLYNDANOTPRSYFVQGGRADTSTTLPOAGKF 656
 QY 486 I-----EKGYREKQALIEYS-----LTFEQLRAATQALAIYFT-----DS 521
 DB 657 TYNGIMAGYLTQKKKQKGYSDNAETIKKKGHPGYLLEN-----FTPEDDDDL 704
 QY 522 AELDKDKLKYHGFQDMNDSTLAVAKILVEYQDSNPOLTDLDFEIPNNKYSQSLIGTO 581
 DB 705 TASDOSQDDNTNGDDDL-----IASDSDQDDDAOGDDSDDL--GDGADDAAGKV 753
 QY 582 WHPEDLVLIIRMEDKKEVIVP--THNLTL-----RKTYTGAGRTADF 623
 DB 754 YAGN-----IRPEFENKYLPINEPHEKTFALDGRKKAKEVDFNTNSLTGLINDERGDI 809
 QY 624 HFEIELKNNKQELLSTQVTKNTLEFKDKRATINLKHGESLTGLGLPGYSYLKETS 683
 DB 810 VEDI--KNKRGDTGTATADVPNRYEEVG--NNQGS-----GLYXNKIDIV 853
 QY 684 EGYKVKVNSOEVA-----NATVSKTG-----ITSDETLAFENKKEPVPTGVQDO 727
 DB 854 KQFEGTNGEELAGOLHDKGQINDTAKAGAVGAVKDKMSKITKTQTSVHTMTTH 913
 QY 728 KINGYL--ALIVYAGISLGIW 746
 DB 914 RLNLAIKALFGVAVLPLSVW 934

RESULT 5
 US-08-447-031A-2
 ; Sequence 2, Application US/08447031A
 ; Patent No. 5851794

GENERAL INFORMATION:

APPLICANT: GUSS, Bengt
 APPLICANT: HOOK, Magnus
 APPLICANT: JONSSON, Hans
 APPLICANT: LINDBERG, Martin
 APPLICANT: PATTI, Joseph
 APPLICANT: SIGMANS, Christer
 APPLICANT: SWITALSKI, Lech
 TITLE OF INVENTION: A COLLAGEN BINDING PROTEIN AS WELL AS
 TITLE OF INVENTION: ITS PREPARATION
 NUMBER OF SEQUENCES: 8
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Burns, Doane, Swecker & Mathis
 STREET: P. O. Box 1404
 CITY: Alexandria
 STATE: Virginia
 COUNTRY: United States
 ZIP: 22313-1404
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/447,031A
 FILING DATE: 22-MAY-1995
 CLASSIFICATION: 435
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/861,804
 FILING DATE: 21-AUG-1992
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: WO PCT/SE91/00707
 FILING DATE: 22-OCT-1991
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: SE 9003374-7
 FILING DATE: 22-OCT-1990
 ATTORNEY/AGENT INFORMATION:
 NAME: McGowan, Malcolm K.
 REGISTRATION NUMBER: 39,300
 REFERENCE/DOCKET NUMBER: 012889-006

TELECOMMUNICATION INFORMATION:
 TELEPHONE: (703) 836-6620
 TELEFAX: (703) 836-2021
 INFORMATION FOR SEQ ID NO: 2:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1183 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-447-031A-2

Query Match 3.8%; Score 148; DB 2; Length 1183;
 Best Local Similarity 19.7%; Pred. No. 0.0022;

Matches 165; Conservative 123; Mismatches 299; Indels 252; Gaps 44;

64 POSSEYRWY---GYESVRCRHPYK-----QFVAHDLRVNLEGSRSY---OVYCF 109
 182 PEOITVHVRKFLNNKSKYVSKDITIKDQIGGQQLDLSTLNNVGTSHNYSQGSALT 241
 110 NLKAPPLGS-----DSSVKRWYKKHKGISTKFEVYAMSPTG----- 148
 242 DFEKAPR-SKSKITVDTKMTIDVTIPQGYGSYFSINRK-----TKITNEQCKEFVNS 295
 149 -----DELNOKLRAYMNGHPONANGIMG-----LEPLNATRVQEAIVYSDNA 194
 296 QAWYQEHGKEEVNGK--SENHTVHNINANAGIEGVKGLKVLKQDKRK-----A 344
 195 PISNPDESFK-RESESNLVSFQSLSLMRQALQIDPNLATKMPKQVDPDFOLSFESF- 252
 345 PIAN--VKRLSKKSDSVKQND-----KEIETITANGIANIKALPSGDYILKELFAPR 397
 253 ---DKGRY-----NKGYQNLISGL-----VPTKPPPTGDPMPRPNQPTTSV 293
 398 PYTFDKDEKPEFTMKDQNOGYFTTIEKNAKIEKTKDVAQKWEQTKYK-----TI 451
 294 LIRKVAIGYS-----KLEGGATLQIGDNNVNSQARVFSND-IGETIELSDGT 342
 452 YKFLVYKODNQTTPVDKAEIKKLEGGTKVWSNL-----PNDKNGKAIR----- 498
 343 YTLTELN-----SPAGYSIAE-----PI-TFKVAGKVTYTLIDGKOLENNKEI 385
 499 YLVKEVNAGGEEDTPEGYTKKENGVLVNTKEKIEFTSISGEVMDKDNQDKRPEK-- 556
 386 VERYSVEAYNDEESVLTQNYAKFY-----AKNKGSSQVYVCFNADLKSPPSEDG 440
 557 ---VSYNLLANGKVKTLDTVSETNMKYEKDLPRKYDEG-KKIEYTVTEHDVYKDYTTDIN 612
 441 GKMTPTDFTTGEVKKYHNGRDLFKYTVKPRDTPDTPLKHIKKVLEK----- 488
 613 GTTITNKYTPGETSATVTAKNMDNNNODGKRPEIKVELLYODGKATGATALLNESNNMTH 672
 489 ---GYRKGQAIIEYSGLTETOLRAAQ-----LAITYTDSAEIDKDKIKDY 532
 673 TWTGDEKAKGQGVQKTYVELTKYKGYTHVDNMDGNLIVTKKYPETTSISGEKVM- 731
 533 HGFQDNDSLAVAKLIVEYADSNPQLDDEFIPNNKKYQSL--IGTQHPREDVD 589
 732 ---DKDN-----ODGKRPEKYSVN-LLADEKVKTLDTVSETNMKYE-FKO 772
 590 IIRMEKKEVIVPHTNLILKRYTGLAGRTKDFHEIFE-----LKNNOELLSSQVKT- 643
 773 LRPYDGGKAI-----EYTVT--EDHVADKYTDINGTITNTKYPGETSATVATKYM 820
 644 -DKTNLE-----FKDGKAT-----INLKGESLTLQGLP-----GYSVLKE- 680
 821 DNNNDGKRPEIKVELYQDGKATGKTALINSNMTHWTGSLDEKAKGQGVQKTYVEL 880
 681 TQSEGYKAVNSQEVANATVSK-----TGTSDETLAEENKKEPVVPGVDOKT--NG 731
 881 TKVKGTYTHVNDMDGNLIVTKKYPETTSISGEKVMDDKDNQDKRPEKYSVNLLANG 939

RESULT 6
 US-08-714-402-2
 ; Sequence 2, Application US/08714402
 ; Patent No. 5910441

GENERAL INFORMATION:

APPLICANT: ROCHA, Claudia
 APPLICANT: FISCHETTI, Vincent A.
 TITLE OF INVENTION: FIBRONECTIN AND FIBRINOGEN BINDING
 TITLE OF INVENTION: PROTEIN FROM GROUP A STREPTOCOCCI
 NUMBER OF SEQUENCES: 2
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: BURNS, DOANE, SWECKER & MATHIS
 STREET: P.O. Box 1404
 CITY: Alexandria
 STATE: Virginia
 COUNTRY: United States
 ZIP: 22313-1404

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/714,402

FILING DATE: 16-SEP-1996

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:

NAME: McGowan, Malcolm K.

REGISTRATION NUMBER: 39,300

REFERENCE/DOCKET NUMBER: 016921-097

TELECOMMUNICATION INFORMATION:

TELEPHONE: (703) 836-6620

TELEFAX: (703) 836-2021

INFORMATION FOR SEQ ID NO: 2:

SEQUENCE CHARACTERISTICS:

LENGTH: 1112 amino acids

TYPE: amino acid

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: protein

US-08-714-402-2

Query Match 3.7%; Score 145; DB 2; Length 1112;
 Best Local Similarity 19.8%; Pred. No. 0.0035;

Matches 190; Conservative 121; Mismatches 327; Indels 324; Gaps 51;

21 KNSKRTVTLV--GVFLMI-----FALVTSVWGAQTVFGLVESSTPNAINPDSSSEYRW- 72
 112 KTSRTVTVTVYENGYYTKLVENPYNGELISAGSKDV-----SSLDLENKKMSVSKYK 166
 73 ---YGESYVRGHPY-----KO-----FVAHDLRVNLEGSRSYOVYCF 109
 167 TEVSSAADFYRNHNAVFKMSPELKQDKSETINPGDTFVLQDRRLNRKG----- 217
 110 NLKAPR-----LGSDDSVKWKYKKHKGISTKFEYA----- 141
 218 -ISODIPKIIYDSANSPILAIGKYHAENHOLIYFTFTYIAGLDKVLQSAELSLFLENKEVY 276
 142 ---MSPRITGDELNOK--LRAVMNHPONANGIMEGL-----EPLNAIVTQE 185
 277 ENTSINFSKSTIGGQETTYKGTAVNLVGNESIKESNITNGLSNVGGSIESYNT--ETGE 334
 186 AVWYSDNAPISN-PDESEK-----RESESNLVSFQSLSLMRQALQIDPNLATKMP 237
 335 FVWYVYVNPRTNIPYATNMLMGFGARASNTSDLENDAMTSSALEIDYEVPEBEKLP 394
 238 KOVPD-----FOLSFESDEKDK-KYNGY----- 262
 395 SSYGVVTVTKLITLTDITAGLGNFGWTKRQRIDFGNNIONKAFIIVTGTQDSGKPLVY 454
 263 -QNLIS-----GG-----LVPTKRPPTGDPMPRPNQPTTSVILRKYA 299

Db 455 QSNLASFRGASEYAAFTPVGNNVYFQNEIALSPKSGSGSKSEF--TKPSITVANKRVA 512
QY 300 IDGYSKL-----LEGATLQTLGDVNVNFOARVESNDIG--RIELSDGTTLTFLNSP 351
Db 513 QLRFKMSTDNVPLPPAELSSNGNS--QKLEASNTGVEHFHFDLTGTTDLITKAP 571
QY 352 AGYS-----IAEPIF-----KVEAGKVTIIDGKQ--IENPNKEIVE 387
Db 572 KGYYQVTEKLAVTVDTTPRAEEMVTWGSPPHSVYKVEANNETIYVHKETLTFSSAKIME 631
QY 388 PYSVEAYNDPEEFVLTTONYAKFYAKKNGSSQVYCFMADLKSPPSDEGKMTMD 447
Db 632 -----NDRPD-----ORPAKIYQLLQNGQ-----KMPNOIOE-----VTRD 663
QY 448 FTTGVEKYTHINGROLFKYTVKPRDTPDPTFLKHKKVLEKGRGQALREXSGLTETQL 507
Db 664 ---NDMSY-HF--KDLPKYDAKMOE-----YKSYVEEYVNPBGYVSTLGDIFNT 708
QY 508 RAATQALAIYFTDSAEILDKLDYHFGDMNDSTLAVAKLIVEYQDS--NPPQLTDL 565
Db 709 R-ETEFVFPQNNPNEFGNAEIKGSGSKIIDEDTLTSFKGKIMKNDPAENRQALIQY 767
QY 566 FF-----INNNKYOSLITQWHP-----DLV-----D 589
Db 768 LYADGVAVEGQTFISGSGNEMSFEEKNLKKNYNGTGNDIISYKVEYVPTGYDYVSAND 827
QY 590 IIRMEDEKKEVI-----PYTNHLTKRTVTGAGDRTKDFHEIE---LKNKQELLS 638
Db 828 IY--NTRREVITYQGGKLEIEETLPLESGASG--GTTVEDSRPVTLSGLSESGQSGD 883
QY 639 QTVKTDK--TNLEEK--DGK---ATINLKHESSLTLOG-----LPEGYSYL 677
Db 884 MLIEDSATHIKFSKRDIDQKELAGATMELRDSCKTISTWISDGQVNDLVPKGYTF- 942
QY 678 VETTSDEGKVV-----KNSQEVANATYSKIGTIDELFLAFENKPEVPTG---VDQ 727
Db 943 VETAAFDGEIATATFTVNEQ--GOVTYNGKATKGDTHIVMDVAKPKSGQVIDIEE 1000
QY 728 KI 729
Db 1001 KI 1002

RESULT 7
US-08-703-947-2
Sequence 2, Application US/08703947
Patent No. 5788962
GENERAL INFORMATION:
APPLICANT: Wise, Kim S.
TITLE OF INVENTION: DNA Sequences Coding for Mycoplasma
TITLE OF INVENTION: Hypopneumoniae Surface Antigens,
TITLE OF INVENTION: Corresponding Proteins and Use in
TITLE OF INVENTION: Vaccines and Diagnostic Procedures
NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
ADDRESSEE: Grace J. Fishel
STREET: 929 Fee Fee Road, Suite 100
CITY: St. Louis
STATE: Missouri
COUNTRY: USA
ZIP: 63043
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 360 KB storage
COMPUTER: Hewlett-Packard Vectra
OPERATING SYSTEM: MS-DOS Version 3.3
SOFTWARE: Wordperfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/703,947
FILING DATE: 28-AUG-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/373,957

FILING DATE: January 17, 1995
ATTORNEY/AGENT INFORMATION:
NAME: Fishel, Grace J.
REGISTRATION NUMBER: 25864
REFERENCE/DOCKET NUMBER: UYA 8141
TELECOMMUNICATION INFORMATION:
TELEPHONE: (314) 878-0440
TELEFAX: (314) 275-7693
TELEX:
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 627 amino acid residues
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: protein
DESCRIPTION: Predicted amino acid sequence of complete
DESCRIPTION: 627 residues of the P65 lipoprotein, derived
DESCRIPTION: from the nucleic acid sequence
HYPOTHETICAL: no
ANTI-SENSE: no
FRAGMENT TYPE: whole polypeptide
ORIGINAL SOURCE:
ORGANISM: Mycoplasma hypopneumoniae
STRAIN: J
INDIVIDUAL ISOLATE:
DEVELOPMENTAL STAGE:
HAPLOTYPE:
TISSUE TYPE:
CELL TYPE: unicellular bacterium
ORGANELLE:
IMMEDIATE SOURCE:
LIBRARY: Genomic in Charon 4A, GEM12
CLONE: MhpJ25, MhpJ35, MhpJG35, pJ25, pJ325.14,
CLONE: pJG35.1, pJG35.12, pJG35.13, pJG35.14
POSITION IN GENOME:
CHROMOSOME/SEGMENT: single chromosome
MAP POSITION: unknown
UNITS: unknown
FEATURE:
NAME/KEY: 627 amino acid sequence representing
NAME/KEY: complete sequence (including signal
NAME/KEY: sequence) of surface lipoprotein P65
LOCATION: entire derived coded sequence
IDENTIFICATION METHOD: clone identified by immunodetection of
IDENTIFICATION METHOD: protein product with antiserum specific for
IDENTIFICATION METHOD: P65; residue sequence deduced from nucleic
IDENTIFICATION METHOD: acid sequence
OTHER INFORMATION: immunogenic surface lipoprotein of no known
OTHER INFORMATION: function; C-terminus exposed on external
OTHER INFORMATION: surface of cell; N-terminal signal sequence
OTHER INFORMATION: (first 29 amino acid residues) cleaved during
OTHER INFORMATION: lipid modification process
PUBLICATION INFORMATION:
AUTHORS: Mary F. Kim, Manijeh B. Heidari, Susan J.
AUTHORS: Stull, Mark A. McIntosh, and Kim S. Wise
TITLE: Identification and Mapping of an
TITLE: Immunogenic Region of Mycoplasma
TITLE: hypopneumoniae p65 Surface Lipoprotein
TITLE: Expressed in Escherichia coli from a Cloned
TITLE: Genomic Fragment
JOURNAL: Infection and Immunity
VOLUME: 58
ISSUE: 8
PAGES: 2637-2643
DATE: August 1990
DOCUMENT NUMBER:
FILING DATE:
PUBLICATION DATE:
RELEVANT RESIDUES IN SEQ ID NO: From 1 to 627
US-08-703-947-2


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Db 1817 -----SLYNEKFYINNEGMVSG--LAIYINDSLYFKPPV--NNLITGFVTVGDCKY 1865
QY 345 LTELNSPAGSIAPET-----TFKVEAGKY-----TI---IDKQIE 379
Db 1866 FNPINGAA-SIGETIIDKNYFNOSGVLTQVFTSEDFKIFAPANTIDENLEGAID 1924
QY 380 NPKKEIVER--YSVEAYNDFEESVLTQNVAKFYA-----KKNKSSQVVCENA 429
Db 1925 FTGKLIIDENIYFFDQNRGAVEMKELDGMH--YFSPETGAKFGLNIGDYKFFNS 1981
QY 430 D--LKSPDSEDEGKMTPTFTTGEVAKYTHIAGR-----DLFKYTVK 469
Db 1982 DGVMQGFVSINNKHFVDSGVAKGYTEIDGKHFFAENGEMOIGVFNTEDGFYK-- 2038
QY 470 PRDTPDTFLKHKKVLEKGYRKGQAIKESGLTETQLRAATOLAIYFETSAE----- 523
Db 2039 -----FAHNEDL-----GNEGEISISGLNFRNK-----IYFDSTFAVVGWK 2080
QY 524 -----LDKDKLDYHGFQDMN-----DSTLAVAKLIVE----- 551
Db 2081 DLBDGSKYFDEDTAEAYIGLSLINDGQYFNDGIMQVGFVINDKVFYFSDSGIIESG 2140
QY 552 -----YAQDSNPQLTDL-----FFIRNNN-----KYQSL----- 577
Db 2141 VQNIIDNYFYIDNGIYQIGVFTSDGKYFAPANTVNDNIYQAAVEYSGLVAVGEDVY 2200
QY 578 -----IGTQWHPEDLVDIRMEDKKEVIVPTNLTJRKVTGLAGRTDFHFE----- 626
Db 2201 FGETYITETGM-----IYDMENESDKYFNPET-----KKACKINLIDDIKYFDEKGM 2251
QY 627 -----IELKNNKQELLQSOTVTKTNLEFKDKATINLK-----HGESLTLQ-----GLPEGYS 675
Db 2252 RGLISENNNYF-----NENGMQGYINIEDKMFYFEDGVMOQIGVNTPTDGFK 2303
QY 676 YLYKE 680
Db 2304 YFAHQ 2308

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; FILING DATE: 04-DEC-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/429,791
; FILING DATE: 31-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: INGOLIA, DIANE E.
; REGISTRATION NUMBER: 40,027
; REFERENCE/DOCKET NUMBER: OPD-01308
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 705-8410
; TELEFAX: (415) 397-8338
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 2366 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-405-496A-10

Query Match 3.5%; Score 139; DB 2; Length 2366;
Best Local Similarity 19.6%; Pred. No. 0.036;
Matches 154; Conservative 86; Mismatches 249; Indels 296; Gaps 38;

QY 83 PYKQFRVAH-----DLRVNLEGSRSYQYCFNLKAKFPLGSDSSVKKMT 127
Db 1633 PYFKFNTLETNTLYLVGNRQNMIVPENYDLDDSGIISFTVNFSSQKYLIGDSCVKN 1690
QY 128 KKHGDIKTFEDYAMSPRITGDELNOKLRAMVNGHPQ-----NANQIMEGLEPLNIRYT 183
Db 1691 -----VVISPNITDTEDINTPYETNTTPEVILVDANIYENKIN-VNINDLS 1737
QY 184 QEAWYYSNAPISNDESEKRESSESNIVSTQSLSMRQALKOLI-----DPNLATMPKQ 239
Db 1738 IRYVW-----SNDGNF-----ILMSTSEENKVSQKIFVAVFKDTLANLKS 1781
QY 240 VPDDFQLSIFSEDEKGD-----KYNKGYONLSG-----GLVPTKPTPGPPMP 284
Db 1782 -----FNFSDKQDVPVSEILISFTPSY-----YEDGLIGYDLGLV----- 1816
QY 285 PNOPTTSVILIRKVAIGDYKLLLEGATLQLTGDNVNSFQARVSSNDIGRIELSDGYT 344
Db 1817 -----SLYNEKFYINNEGMVSG--LAIYINDSLYFKPPV--NNLITGFVTVGDCKY 1865
QY 345 LTELNSPAGSIAPET-----TFKVEAGKY-----TI---IDKQIE 379
Db 1866 FNPINGAA-SIGETIIDKNYFNOSGVLTQVFTSEDFKIFAPANTIDENLEGAID 1924
QY 380 NPKKEIVER--YSVEAYNDFEESVLTQNVAKFYA-----KKNKSSQVVCENA 429
Db 1925 FTGKLIIDENIYFFDQNRGAVEMKELDGMH--YFSPETGAKFGLNIGDYKFFNS 1981
QY 430 D--LKSPDSEDEGKMTPTFTTGEVAKYTHIAGR-----DLFKYTVK 469
Db 1982 DGVMQGFVSINNKHFVDSGVAKGYTEIDGKHFFAENGEMOIGVFNTEDGFYK-- 2038
QY 470 PRDTPDTFLKHKKVLEKGYRKGQAIKESGLTETQLRAATOLAIYFETSAE----- 523
Db 2039 -----FAHNEDL-----GNEGEISISGLNFRNK-----IYFDSTFAVVGWK 2080
QY 524 -----LDKDKLDYHGFQDMN-----DSTLAVAKLIVE----- 551
Db 2081 DLBDGSKYFDEDTAEAYIGLSLINDGQYFNDGIMQVGFVINDKVFYFSDSGIIESG 2140
QY 552 -----YAQDSNPQLTDL-----FFIRNNN-----KYQSL----- 577
Db 2141 VQNIIDNYFYIDNGIYQIGVFTSDGKYFAPANTVNDNIYQAAVEYSGLVAVGEDVY 2200
QY 578 -----IGTQWHPEDLVDIRMEDKKEVIVPTNLTJRKVTGLAGRTDFHFE----- 626
Db 2201 FGETYITETGM-----IYDMENESDKYFNPET-----KKACKINLIDDIKYFDEKGM 2251
QY 627 -----IELKNNKQELLQSOTVTKTNLEFKDKATINLK-----HGESLTLQ-----GLPEGYS 675

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QY 388 PSQVEAYNDFEESVLTQVYAKFYAKKNGSSQVYCCPNADLKSPDPS--EDGCKTWT 445
DB 354 IYSPR-----LNNGETLYFMDKQGS---LIFASDINOGAGLYEGNETVNS 397
QY 446 PDFT-TGEVYKTHIAGRDLEFKYTVKPRDDPDPLK-----HI-----K 483
DB 398 PNEGNOFMOGAGIHVSNS--TVTWKYNVGEHDLISKIGKGLHVAQKGENKSSISVGDCK 455
QY 484 KVIKGYREKGOAIEYSGLETOLRAATOLAIYFTDSAEIDKDKIDYHFGC---DMN 539
DB 456 VILEQOADDQGNKQAFSEIGLYSGRGTVQL-----NDDKQFDYDKF--YFGFRGRLDLN 508
QY 540 DSNLAVALIYEAQDSNPPQLTDLDFEIPNNKXQSLIGTOMHPEDLV-----DIIRME 554
DB 509 GSHLTFRRI-----QNTDEGAMIVNHTTQAAVNTTIGNESIVLPNGNNINIKLD 557
QY 595 DKREVIPTVHTLRTKTVGLADRTKDFEIELEKNNKQELLSQTVKTDK-----TN 647
DB 558 YRKEI-----AYNGMFETDKNH-----NGRLNLKYPTEDETRILLSGTN 600
QY 648 LE-----FKDKAT-----INLKHGESLTLOGLPEG-----YSYLVKETSDEGY 686
DB 601 LKGDITQTKGKLFPSGRPTPHAYNHLNRKMSF---MEGIPOGEIVMDHDWINTFRKAENF 657
QY 687 KVVVNSQGEVA-----NATVSK-----TGITSDETLAEENN 716
DB 658 QINGGSAVVSRRVNSIIEGMWTVSNMNAFVGVPVNOONTICTRSDMTGLTTCOKVLDLTP 717
QY 717 KEPPVPTGVQDKINGYLAL 735
DB 718 K--VINSIPKTOINGSINL 734

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RESULT 13
US-08-946-475-2
; Sequence 2, Application US/08946475
; Patent No. 6013505
; GENERAL INFORMATION:
; APPLICANT: Gwynn, Michael
; APPLICANT: Kallender, Howard
; APPLICANT: Palmer, Leslie
; TITLE OF INVENTION: TOPOLISOMERASE I
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Smithkline Beecham Corporation
; STREET: 709 Swedeland Road
; CITY: King of Prussia
; STATE: PA
; COUNTRY: USA
; ZIP: 19406-0939
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; OPERATING SYSTEM: DOS
; SOFTWARE: PASTSEQ for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/946,475
; FILING DATE: 08-OCT-1997
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 60/027,973
; FILING DATE: 08-OCT-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Gimmil, Edward R
; REGISTRATION NUMBER: 38,891
; REFERENCE/DOCKET NUMBER: P50560
; TELEPHONE: 610-270-4478
; TELEFAX: 610-270-5090
; TELEX:
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:

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; LENGTH: 691 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-946-475-2

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Query Match 3.2%; Score 125.5; DB 3; Length 691;
Best Local Similarity 19.8%; Pred. No. 0.066;
Matches 133; Conservative 89; Mismatches 228; Indels 221; Gaps 33;

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QY 112 KKAFLPGSDSSVKKWKYKHHGISTK--FEDYAMPSPITGBELNOKLRAYVYNGHPQNG 169
DB 25 KKYKVIASMGHVADLPDSQMGVDIEDNYEPKTYITNGKGVVLELK-----HAKKAK 78
QY 170 IMEGLEPLNAIRYTOEAWYYS-----DNAPISNP-----DESEFN--RESESNLY 212
DB 79 VFLASDP---DREGELAMHLSKILELEDSKENRVYFNETTKDAVYESFRNPREIEMNLV 135
QY 213 STSQSLMRQALKQLIDPNLATKMPKV-----PDDF 244
DB 136 DAOQ---ARRILDRLVGYNISPVLMKKVKKGLSAGRVQVALRLVIDRENEIRNFKPEEX 192
QY 245 QLSIFESQKGDYK--GYON-----LLSGGLVPTKPPFGDPMMP 285
DB 193 WTEGGEFRYKSKFNKFLHYKPKPKLTKKDYKETAALDGDQFEITNVTKKTRNP 252
QY 286 NOPOTTSVLIRKAYIGDYSKLEGATLQTDGVNVSFOAR--VFSSNDIGERIEL--SDGT 342
DB 253 ANPFTTS-----TLQGEARKLNFKAKTMMVAQOLYEGIDLKKQGT 294
QY 343 YTL-----TELSNPAGYSIAEPIYFKVEAGKYTTI---IDGQIENPKELVEPY 390
DB 295 IGLITYMRDSTRISPTAKAEAKOYITDKY--GESYTSKRKASGKODDPAHAIRPSSP 352
QY 391 VEAYNDFEESVLTQVYAKFYAKKNGSSQVYCCPNADLKSPDPSQCKTMTDFDT 450
DB 353 MRPDDMKSF--LTQOYRIYKLIWERFVASQMA-----PALLD--TVSLDITO 397
QY 451 GEVYKTHIAGRDLEFKYTVKPRDDPDPLFKIKKIVIEKGYREKGOAIEYSGLETOLRAA 510
DB 398 GDILK-----FRANGQIKFRGF----- 414
QY 511 TQLAITYFT--DSAELEKD---KLKDYHGFQDMNDSTLAVAKLIVEAQ--DSNPPQLTD 563
DB 415 --MTLVETKDDSDSEKNEPKLEQ---GD-----KVTAQIHPAQHYTQPPRYTE 462
QY 564 L-----DFEIP-----NNKXQSLIGTOMHPEDLVDIIRMEDK--EVIP 601
DB 463 ARLVLTLEELKIGRPSTYATPTDITQKRNIVKLESKRFVETGEIVHEQVKEPPEIID 522
QY 602 VTHNLTLRKTVTGLA--GDRTKDFEIELEKNNKQELLSQTVKDKDNLEFKDKATINLK 660
DB 523 VEFTVMMETLDDKIAAGDITWRKVIDGFSSFKQDY--EBAEEMKIEIKDEPA----- 575
QY 661 HGESLTLOGLP 671
DB 576 GEDCEVCGSP 585

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RESULT 14
US-08-946-475-9
; Sequence 9, Application US/08946475
; Patent No. 6013505
; GENERAL INFORMATION:
; APPLICANT: Gwynn, Michael
; APPLICANT: Kallender, Howard
; APPLICANT: Palmer, Leslie
; TITLE OF INVENTION: TOPOLISOMERASE I
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Smithkline Beecham Corporation

```



```

Dб 194 EYTPSGEI-----QMKRTAI---EAFMETIKIPEOC 223
Oy 476 DPEKHKIKYIEKCYREKGOAIEYSGITSEPOLRAATOIAIYTPDSALDKYKYNIGF 555
Dб 224 HTOCHSHNDYIER-FREGEKEKETERIM-----NYUDKLS-K-RL 260
Oy 536 GDMDSPTLAIVAKILVEVAOSNPQOLDPEFLPNNNKYOGLGTOWHREHDIIVIMED 595
Dб 261 GEINDSKILREODLKKALDNR-----EID-----KMSI-----KCDLLOLRKIRD 303
Oy 596 KKEVIRPYNHLLTRKTYTGLAGDRTKDFHEIEILKNNKOELLQYTKDXTNLEFKDGA 655
Dб 304 -QHLVWLNHR-----GVQRRLNAMLGIKINEDSD-ESYFIEEDENPNHYDEKT 350
Oy 656 -----TINKHGESITLOGLREGYSYILKVEDSEC-YVKKVNSO-EVANAIVAKST 703
Dб 351 WEVEDINVOAEDL-LYGGPDG-AFLIRRESKKGCYACSVABEYHNCVIST 402

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